AMENDMENTS TO THE ABSTRACT:

Please amend the Abstract as follows:

ABSTRACT OF THE DISCLOSURE

~~The invention is an entirely new application of domain~~ Domain characterization generated by Voronoi tessellation, which is very close to realistic geology and computation of gravity response of such domain, ~~which~~ has a three dimensional fractal basin structure, and is favorable for oil exploration. ~~In this work the interfaces~~ Interfaces or tessellating domains are represented by a set of parameters, which are referred as Voronoi centers. These parameters can be perturbed by any amount without getting into representational problems ~~as faced by the conventional techniques~~. To accomplish such representation Voronoi tessellation is used, which in two dimensional space ~~consists of~~ involves enclosing every Voronoi center by a Voronoi polygon such that the common edge of adjacent polygons is a perpendicular bisector to the line joining the Voronoi centers on both the sides of that edge. ~~In this invention instead~~ Instead nstead of using conventional Euclidian distances, the notion of Voronoi tessellation is generalized by using L^P distances, where p can hold any real value so that Voronoi domains are not necessarily polygonal. ~~Desired~~ A desired fractal subsurface is generated using this approach that is quite close to the natural settings ~~than the conventional planer or polygonal representation~~. Next, the gravity response due to this fractal subsurface structure ~~has been~~ is computed. ~~The new invention has a~~ A significant advantage ~~over the conventional methods~~ is provided especially in geophysical inversion where initial model parameters are updated in each iteration, which can be done more easily and efficiently by Voronoi tessellation merely by changing Voronoi centers.

Attachment: Replacement Sheet